UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

## NOTICE OF ALLOWANCE AND FEE(S) DUE

58766

7590

01/30/2009

Beyer Law Group LLP P.O. BOX 1687 Cupertino, CA 95015-1687 EXAMINER

BOUTAH, ALINA A

ART UNIT PAPER NUMBER

2443 DATE MAILED: 01/30/2009

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/587,721	06/05/2000	Winga Ho	MITEP010	7907

TITLE OF INVENTION: SYNCHRONIZATION METHOD AND SYSTEM FOR KEEPING TRACK OF ENCODING HISTORY TO MAINTAIN DIGITAL SYSTEM SYNCHRONIZATION DURING COMMUNICATION OVER LOSSY TRANSMISSION MEDIA

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$0	\$0	\$1510	04/30/2009

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

### PART B - FEE(S) TRANSMITTAL

## Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE

Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or <u>Fax</u> (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where n

indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new of maintenance fee notifications.  CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)					Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.			
58766 Beyer Law Gro P.O. BOX 1687 Cupertino, CA 9.	•	/2009		I her	Certifice the certify that this Ferry Postal Service with	ate of Mailing or Transi e(s) Transmittal is being	mission  deposited with the United t class mail in an envelope above, or being facsimile ate indicated below.	
							(Depositor's name)	
							(Signature)	
							(Date)	
APPLICATION NO.	FILING DATE		FIRST NAMED INVEN	TOR	AT	FORNEY DOCKET NO.	CONFIRMATION NO.	
09/587,721	06/05/2000		Winga Ho			MITEP010	7907	
TITLE OF INVENTION DIGITAL SYSTEM SYN  APPLN. TYPE				RANS			DATE DUE	
nonprovisional	NO	\$1510	\$0	OL	\$0	\$1510	04/30/2009	
EXAM		ART UNIT	CLASS-SUBCLASS		ΨΟ	\$1310	04/30/2007	
ВОИТАН,		2443	709-248000					
"Fee Address" indi PTO/SB/47; Rev 03-0 Number is required.  3. ASSIGNEE NAME AT PLEASE NOTE: Unlo	ess an assignee is identi n in 37 CFR 3.11. Comp	' Indication form ed. Use of a Customer A TO BE PRINTED ON	or agents OR, alter (2) the name of a s registered attorney 2 registered patent listed, no name wil THE PATENT (print o data will appear on the	single or a attor Il be p or typ he pag an a	e firm (having as a mergent) and the names of neys or agents. If no norinted.  e)  ttent. If an assignee is	mber a 2	ocument has been filed for	
		4lpermitted)	b. Payment of Fee(s): ( A check is enclos Payment by credi The Director is he	Pleased.	se first reapply any parts.	reviously paid issue feest ttached. he required fee(s), any de		
	s SMALL ENTITY statu	is. See 37 CFR 1.27.				NTITY status. See 37 CFd attorney or agent; or th	FR 1.27(g)(2). e assignee or other party in	
interest as shown by the r	ecords of the United Sta	tes Patent and Trademark	COffice.		<del>-</del>	· -	·	
Authorized Signature			Date					
Typed or printed name								
an application Confident	iality is governed by 35 I application form to the ons for reducing this bur irginia 22313-1450. DO	U.S.C. 122 and 37 CFR	1.14 This collection i	s esti	mated to take 12 minu	tes to complete includin	by the USPTO to process) g gathering, preparing, and ne you require to complete utment of Commerce, P.O. For Patents, P.O. Box 1450,	

PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.

OMB 0651-0033

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450

P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE		FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/587,721	06/05/2000		Winga Ho	MITEP010	7907
58766	7590	01/30/2009		EXAMINER	
Beyer Law Group LLP			BOUTAH, ALINA A		
P.O. BOX 1687	•	_		ART UNIT	PAPER NUMBER
Cupertino, CA 9	5015-168	7		2443	

# Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 1520 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 1520 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

	Application No.	Applicant(s)	
	09/587,721	HO, WINGA	
Notice of Allowability	Examiner	Art Unit	
	ALINA N. BOUTAH	2443	
The MAILING DATE of this communication apperall claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RI of the Office or upon petition by the applicant. See 37 CFR 1.313 1. This communication is responsive to 11/21/08.	(OR REMAINS) CLOSED in or other appropriate commu <b>GHTS.</b> This application is s	this application. If not included inication will be mailed in due cours	
2. ☑ The allowed claim(s) is/are <u>1-20</u> .			
3. Acknowledgment is made of a claim for foreign priority un  a) All b) Some* c) None of the:  1. Certified copies of the priority documents have  2. Certified copies of the priority documents have  3. Copies of the certified copies of the priority documents have  International Bureau (PCT Rule 17.2(a)).  * Certified copies not received:  Applicant has THREE MONTHS FROM THE "MAILING DATE" on the complex of the priority documents have  Applicant has THREE MONTHS FROM THE "MAILING DATE" on the complex of the priority documents have  Applicant has THREE MONTHS FROM THE "MAILING DATE" on the complex of the priority documents have  Applicant has THREE MONTHS FROM THE "MAILING DATE" on the complex of the priority documents have  Applicant has THREE MONTHS FROM THE "MAILING DATE" on the complex of the priority documents have  Applicant has THREE MONTHS FROM THE "MAILING DATE" on the complex of the priority documents have  Applicant has THREE MONTHS FROM THE "MAILING DATE" on the complex of the priority documents have  Applicant has THREE MONTHS FROM THE "MAILING DATE" on the complex of the priority documents have  Applicant has THREE MONTHS FROM THE "MAILING DATE" on the complex of the priority documents have  Applicant has THREE MONTHS FROM THE "MAILING DATE" on the complex of the priority documents have  Applicant has THREE MONTHS FROM THE "MAILING DATE" on the complex of the priority documents have  Applicant has THREE MONTHS FROM THE "MAILING DATE" on the complex of the	been received.  been received in Application cuments have been received of this communication to file ENT of this application.	n No  If in this national stage application from the stage applicat	nents
INFORMAL PATENT APPLICATION (PTO-152) which give  5. CORRECTED DRAWINGS ( as "replacement sheets") mus  (a) including changes required by the Notice of Draftspers  1) hereto or 2) to Paper No./Mail Date  (b) including changes required by the attached Examiner's  Paper No./Mail Date  Paper No./Mail Date  Identifying indicia such as the application number (see 37 CFR 1. each sheet. Replacement sheet(s) should be labeled as such in the depose attached Examiner's comment regarding REQUIREMENT I	t be submitted. on's Patent Drawing Reviev s Amendment / Comment or 84(c)) should be written on the header according to 37 CF sit of BIOLOGICAL MATE	v ( PTO-948) attached in the Office action of ne drawings in the front (not the back) R 1.121(d). ERIAL must be submitted. Note the	
Attachment(s)  1. ☑ Notice of References Cited (PTO-892)  2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)  3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date  4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material	6. ☐ Interview Si Paper No./ 7. ☑ Examiner's	formal Patent Application ummary (PTO-413), Mail Date Amendment/Comment Statement of Reasons for Allowanc -·	e

Application/Control Number: 09/587,721 Page 2

Art Unit: 2443

### **EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Jonathan O. Scott on 1/13/2009 (amendment to the claims) and 1/26/2009 (amendment to the abstract).

The application has been amended as follows:

## Please replace the original abstract with the following:

Encoded data is transmitted between synchronized sending and receiving digital systems across a lossy transmission media. The systems include respective encoder and decoder information records. If data packets are lost, the encoder rebuilds the encoder record without the missing packet data. Encoding continues using previous encoder records. In a method, packet data is encoded using encoding information in an encoder information record. A new encoder information record is built. The encoded packet data is transmitted to the receiving system with a header. The receiving system examines the header. The packet is decoded using a decoder information record and the decoder information record is updated. The packet is acknowledged to the sending system to enable the sending system to update encoder information. If the packet is lost, the encoder information is conditioned to rebuild new encoder information without the lost packet data. Thus, encoding history is used even when packets are lost.

## In the claims:

Claim 17: A communication system including synchronized sending and receiving digital systems transmitting encoded data across a lossy transmission medium, said sending and receiving digital systems maintaining respective encoder and decoder information records, said communication system comprising:

Page 3

at the sending digital system, an encoder <u>recorded in a memory</u>, for encoding packet data to be transmitted using encoding information in an encoder information record that has been previously acknowledged by said receiving digital system;

an encoder information record construct for building a new encoder information record including the encoding information used to encode said packet data as well as the packet data; and

a transmitter for transmitting the encoded packet data to the receiving digital system as a packet including a header having a packet number and a tag identifying the encoding information used to encode the packet data; and

at the receiving digital system, a header destruct for examining the header to determine the encoding information used to encode said packet data;

a decoder <u>recorded in a memory of said receiving digital system</u>, for decoding the packet using corresponding decoder information in said decoder information record and updating the decoder information in the decoder information record with the packet data; and

an acknowledger for acknowledging processing of the packet to the sending digital system to enable the sending digital system to update the encoder information so that the new encoder information record is used to encode packet data, wherein when a packet is lost, said encoder information record construct is conditioned to rebuild the new encoder information record without the lost packet data.

The following is an examiner's statement of reasons for allowance: claims 1-20 are allowed in view of the decision by the Board of Patent Appeals and Interferences dated September 8, 2008.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALINA N. BOUTAH whose telephone number is (571)272-3908. The examiner can normally be reached on Monday-Thursday (9:00 am - 5:00 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tonia L.M. Dollinger can be reached on 571-272-4170. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Alina N Boutah/ Examiner, Art Unit 2443